



Parks For Learning

RAYMOND GREGG, *Park Naturalist*
National Capital Parks

Well distributed over the District of Columbia and its environs lie some 750 park areas ranging in size from a few square feet to over 1700 acres. Places of national historical importance or memorial significance, bits of near-perfection in landscaping, conventional playgrounds, undeveloped lands, and natural areas of high quality comprise this system, administered within the Department of the Interior as the National Capital Parks.

A million and a quarter people are so distributed that a park of some type is near almost everyone. Conventional uses such as rest, relaxation, play, and picnicking are intensive, in many cases far beyond the capacity of the lands involved. Paradoxically, one of the greatest potential uses of these parks, and a non-destructive one, remains almost untouched. This is the opportunity to use these areas for education.

Visible from the window, around the corner, or down the street from many classrooms in which science suffers claustrophobia, are plots of park or unused land on which a whole pageant of nature's processes goes on undetected and unused by myopic or schedule-bound teachers. Not recognizing the wealth of material so near them, or being afraid of its complexity, they go on teaching science and nature largely as textbook topics, with only occasional digressions from the charted course when Jimmy brings in a shell from a Florida beach, or when a trusting robin raises its brood upon the classroom window sill.

To demonstrate how some of the outdoor values can support and vitalize the elementary science curriculum, the naturalist staff of National Capital Parks cooperated in a pilot project at Jackson School, which lies across the street from Montrose Park in Georgetown, D. C. The curriculum was reviewed to determine how the park could provide related field studies. It was found that all of the major curriculum aims could be served through continuing attention to the changing effects of the seasons upon soil, plants, and animals. Age-graded units of experience were set up. Typical of these were:

1. Using our senses to discover things
2. Living things prepare for winter
3. Homes of animals
4. Nature and effects of snowfall
5. How freezing affects the soil
6. How trees grow
7. Seasonal changes in bird populations
8. Signs of spring
9. Color, form, and motion in nature
10. Weather observations

(Continued on page 5)

On the Conservation Front

Legislation that would carry into effect the proposed Echo Park and Split Mountain dams in Dinosaur National Monument has not yet put in its appearance in Congress. In the meantime public sentiment against this invasion of a National Park Service area has been building up, promising a strong opposition when the issue is finally joined . . . Grazing interests in the West are also perfecting a subtle program that would undercut the U. S. Forest Service and the American people, but thus far they have not gotten their plans into the form of legislation . . . Bureau of Reclamation dam projects, however, are stirring up trouble. The proposed Curicanti Dam at the head of the Black Canyon of the Gunnison in Colorado, for example, would flood out about one-fourth of the best bottomland ranch property in the county, cut the carrying capacity of the winter deer range, and back water over the best stretch of trout water in the Gunnison River. It also would affect the Black Canyon National Monument. This and other similar projects re-emphasize the importance of an effective Board of Review that would consider *all* of the impacts of irrigation, flood control and hydroelectric projects before giving the green light. Many pet projects and "development" plans are in the works masquerading as "national defense." These will put conservationists ever on the defensive but it can't be helped.

Newton B. Drury's resignation as Director of the National Park Service, under pressure from above, did not instill confidence among conservationists in Oscar L. Chapman, Secretary of the Interior, coming as it did on top of his decision in the Dinosaur National Monument issue. Mr. Drury leaves the National Park Service leadership in good hands, but those hands are going to need upholding by conservationists, and park preservationists, as special interests and government agencies translate envy of park resources into special projects that would exploit these resources.

On the positive side there is brewing a specific program of legislation that would give wilderness areas official status, leaving them under the administration of whatever bureau now administers them. The U. S. Forest Service has done a good job of holding wilderness and primitive areas in such status, but it is now only a matter of classification and not specific designation. This goes also for certain areas administered by the U. S. Fish and Wildlife Service as refuges, and areas under other public land agencies.

Also on the positive side is a move by the Natural Resources Council of America toward the establishment of Grasslands National Monuments. A committee headed by Carl D. Shoemaker of the National Wildlife Federation, and of which your chairman is a member, has been appointed to draft legislation.

(Continued on page 5)

AMERICAN NATURE STUDY SOCIETY NEWS LETTER

Affiliated with The National Association of Biology Teachers

Affiliated with The National Science Teachers Association

Affiliated with The American Association for the Advancement of Science

Publication Dates: Winter, February; Spring, May; Summer, August; Fall, October

Secretary

EDWARD BOARDMAN

Museum Arts and Sciences, Rochester 7, N. Y.

Treasurer

RAYMOND GREGG

P. O. Box 884, Washington 4, D. C.

Editor

HAZEL A. FINK

Box 111, Elmford, N. Y.

Film Editor

JAMES FOWLER

Academy of Natural Sciences, Philadelphia 3, Pa.

Conservation Education

Reprinted from Nature Magazine

Charting routes in education, and dealing with the relationship of the schools to issues of national importance, the Yearbook of the American Association of School Administrators is always a significant publication. The Twenty-ninth Yearbook bears the title *Conservation Education in American Schools*,* and is, to our possibly prejudiced mind, specially significant. This, then, is an editorial-review of a book for which we bespeak the widest possible circulation.

"To bring about the prudent use of natural resources in a democracy, large dependence must fall on education . . . Unless conservation education becomes much more general than it has been in the past, needless shortages soon will undermine the prosperity and welfare of our people." These two sentences are quoted from the foreword, which sounds the keynote of the aroused conviction of the Yearbook, "an administrator's guide, which defines a broad area of school responsibility and indicates what can be done about it."

Conservation is discussed as the "price of survival" in the first chapter of the book, which paints a broad picture of the conservation scene and the interrelation of its component parts; a philosophy that holds that "wise resource use must take into account the essential unity of all resources." It is urged that "The American people need to understand this essential unity of natural resources if conservation is to become an attitude, or way of life, in our democracy. Wise planning for resource use can be done only by those who are able to think broadly and to see the interdependences that exist."

Against this picture of conservation unity is projected the resumé of what has been done thus far; what agencies, governmental and private, have been given the responsibility of meeting the challenge of resource depletion and dislocation. And as to the challenge to the educator, it is emphasized that "All methods of disseminating information and all types of education will be needed, including a well-planned program of conservation education in all of the nation's schools. Youngsters now in school, who tomorrow will man the posts of government,

industry, agriculture, and all other areas of economic and social life, must be led to an understanding of the natural processes that operate in their environment."

From both the point of view of the school administrator and the conservationist, the third chapter is important. It lays down specific guides for school programs; enunciates certain principles; emphasizes certain lacks and the means to supplying them. Inclusion of conservation in both elementary and secondary schools is urged, if children are "to acquire satisfactory insight into the various types of conservation problems, and develop functional conservation attitudes, habits, and skills . . ." It is pointed out that there is "no community or area in the United States, whether urban or rural, that does not have its major conservation needs."

As a matter of curriculum practice, it is proposed that conservation knowledge and experience be integrated into the prevailing curriculum, notably through social studies, the natural sciences, history and geography. The importance of outdoor, practical experience is emphasized, also, and cooperation is urged with all existing agencies in planning and participating in programs.

Turning to the teachers, the Yearbook asserts that they must be "helped to understand more clearly than most of them now do the problems of wise resource use," and if this is not achieved "there is little hope of widespread and effective conservation education in the schools." This should be accomplished through preservice training, supplemented by workshop participation, which activity is discussed in two chapters. The importance of training administrators is also stressed. It is pointed out that on account of "the relatively meager opportunities that are now available for preservice education for teachers and school administrators in the conservation of natural resources, a huge job of inservice education needs to be carried out." At the same time, we cannot safely rely on merely educating the coming generations; adult education today is equally important.

Surveys of school textbooks reveal them to be generally deficient in attention to conservation. Social science texts devote only a few pages; biology texts, for the most part, give the subject pass-

ing notice; history texts, although our whole history is based upon the use — and abuse — of natural resources, usually ignore conservation; geography textbooks discuss resources but lack interpretation in terms of conservation. It is pointed out that publishers strive to keep abreast of educational trends, and that when "teachers and administrators offer a clearer idea of the kind of conservation materials they want in science and social studies books, the textbook publishers will produce them." The sooner the better.

The Yearbook issues a "call to action" in no uncertain terms, when it outlines the responsibility of the schools by saying:

"If one accepts the modern school as an effective institution for the attainment of improved living, then a consideration of the conservation of natural resources as one phase of the school program is no longer debatable. The importance of the problems connected with the wise use of natural resources and the broad implications of these problems for the welfare of our people leave the school no alternative."

*Conservation Education in American Schools. 327 pages. American Association of School Administrators, 1201 16th Street, N.W., Washington 6, D. C.

Flash on Philly Meetings

Most of the speakers on the "Museum's Contribution to Nature Education" panel have accepted for their share in making the December meetings in Philadelphia the best we have had yet.

There is going to be a Visual-Aid panel and one on publishing Nature Magazines with editors of various outstanding magazines as speakers.

A plan is underway for as interesting a book exhibit as we can manage. Those of you who have had books published are invited to send flyers, brochures, or the books themselves to your editor, Hazel Fink. Any and all suggestions are welcome, only don't put off sending them in. DO IT NOW.

Any material on Nature Crafts which you have either used or know about, would also be gratefully received.

Hear Ye A New Tax Deduction?

Mr. James Fulton of Pennsylvania suggests a bill which would provide that amounts paid during the taxable year for construction of facilities for the treatment of waste (approved by the state or an interstate authority) shall be allowed in computing the net income of the taxpayer. Referred to the House Committee on Ways and Means. H. R. 3360.

News Items

Home Museums

Mr. C. M. Goethe, of Sacramento, California reports, that after 60 years of experience in using Nature Study to help mold the characters of children, that he is convinced that few devices are more successful than the home museum.

In a recent study of his native city, it was ascertained that in the public school approximately 49 per cent of the pupils were from broken homes. As a preventative measure against juvenile delinquency, the home museum even in such disrupted families provided a valuable means for keeping children interested in nature study.

Mr. Goethe says, that out of this work among children with high intelligence ratings, he has seen some top scientists develop.

Ray Gregg Gets New Post

Our own Chancellor of the Exchequer, H. Raymond (Ray) Gregg, has been named Chief of the Interpretive Branch, Natural History Division, of the National Park Service. Turning over the responsibility of Chief Naturalist of the Office of National Capital Parks to W. Drew Chick, Jr., Ray steps into an important Park Service post.

Director Demaray announced that Ray "will devote much-needed attention to research of the natural history in National Park Service areas, and coordinate and improve interpretive services for visitors to these areas."

Our treasurer entered the service in 1933, and served eleven years as a naturalist at Rocky Mountain National Park, where he won an enviable national reputation for a Nature broadcast.

Certainly no selection could have been wiser or happier, than the election of Ray Gregg to do the big task now facing him.

Proposed Natural Areas Project

Westchester County hopes to initiate a County Recreational Nature Camp this summer. The beginnings will be humble but there are big possibilities for the future.

Under the careful nurturing of Miss Vivien Wills who is employed by the Recreation Commission, the plans are being laid.

Miss Wills started a Music Camp which has been growing in popularity and now she is deeply interested in making it possible for the youth of the county to take advantage of the rapidly shrinking natural areas in this suburban section. At the moment she is shopping for a Naturalist Director, who will be interested enough to ignore the fact that at least in its beginning stages, the job will not offer a large sum of money.

Workshops for 1951

The Yosemite Field School offers its delightful session of work and fun to interested people. This work shop is growing rapidly in popularity. For further details contact Donald E. McHenry, Director of Yosemite Natural History Assn., Yosemite National Park, Box 545, Calif.

Derrybrook, in the Green Mountains of Vermont for beginners or advanced campers. For learning and practicing camping skills, getting acquainted with nature and for having fun out of doors. Pastures, meadows, hills and woods, plus a mountain brook with a natural swimming pool. A two week special skills session is being offered for experienced campers, 16 to 18 years of age for future camp leadership. Marie Gaudette, one of our members, leads this group. Derrybrook is a good place for experimenting. What would you like to try? Ask about it. Miss Catherine Hammett, South Londonderry 17, Vermont.

National Camp, Outdoor Education Assn., Inc., Lexington Ave., New York 17, New York (formerly Life Camp Inc.) opens its twelfth season July 6 - August 17. Come all ye Teachers, Camp Directors, Principals and Superintendents — fifty-five acre lake, 1000 acre forest camp property, excellent food, nationally known leaders, T. C. Columbia U. offers eight points graduate credit.

Camp located between Sussex, N. J. and Port Jervis, N. Y.

National Audubon Society Camp for Adults, directed by Charles Mohr, ANSS member, leads the group at the Greenwich Nature Center, Connecticut.

There are four Audubon camps. Audubon of Maine, Audubon of Connecticut, Audubon of California, and Audubon Camp of Texas. For information write: National Audubon Society, 1000 Fifth Avenue, New York City, N. Y.

August 25 is the date set for the start of the 1951 traveling School of Conservation and Nature Study sponsored for the third season by the Conservation Forum of New York state and the Buffalo Museum of Science. Co-directors Ellsworth Jaeger (ANSS Prexie), the Curator of Education for the Buffalo Museum of Science, and Miss Mabel James, chairman of the Conservation Forum New York State and Research Associate in Conservation at the Museum. Contact Miss James at Holland, New York for further details.

This work shop offers a rare opportunity to interested people to better understand by seeing and learning through seeing of conservation of soil, water, forests, wildlife and natural beauty. PLUS the chance to view our president at work.

West Virginia Nature Camps at Lake Terra Alta, Preston County, announces its twenty-fourth season — June 20 to July 8. This latter for the Older Youth Nature Camp, July 1 to July 8 for the Family Nature Camp. For further details write Director, Nature Education, Oglebay Institute, Wheeling, West Virginia.

University of California Extension in cooperation with Santa Barbara Museum of Natural History and the Santa Barbara Botanic Garden, offers the Institute of Nature Study and Conservation, July 30 through August 11. Two weeks, three units, \$27.00. Regardless of previous experience or education, any interested individual may attend. Katherine Muller, coordinator, 906 Santa Barbara Street, Santa Barbara, California.

Water Pollution

WHAT IS BEING DONE ABOUT IT?

In order to get first hand information, the National Wildlife Federation invited Carl E. Schwob, Chief of the Division of Water Pollution Control in the Public Health Service to its annual meeting.

In brief, Mr. Schwob said that studies have been going on for about a year and a half. The area of the country was divided into major drainage basins and a field office was set up in each area. There are about 260 sub-basin areas in the country. Field staffs have been compiling reports summarizing sub-basin data for the major drainage basins.

The real objective of these studies, is to get action on the part of the municipalities and industries to bring pollution under proper control.

Since the war municipalities have built 646 treatment plants, serving nearly 10,000,000 people. Of great importance is the progress made by industry in conserving water by controlling pollution. Over 500 industrial waste treatment plants have been constructed since the war.

The foundation on which the entire water pollution control program is based, is that of cooperation. Cooperation between the states, interested conservation organizations, women's clubs, industry, and the Federal government.

Public education is essential to this program. Special publications are available to aid in this education of the public. "Clean Water is Everybody's Business" was issued last October and is available upon request.

Throughout the United States there are over 22,000 significant sources of pollution. Ten thousand new treatment plants, replacements of existing facilities, or enlargements or additions, are now known to be needed.

Observation Tower

From this lofty perch, where the editor has naught to do but to fight a losing battle with a dust-accumulating menage, chase three young female off-spring, scream at a wild assortment of domesticated animal life, it would seem that prying delectable or even just barely printable items from the members of ANSS is a losing job.

Can it be that all one thousand odd ANSSers have taken to sitting on their hands? The answer seems to appear — the more involved a person is, the more he produces. For instance, our eminent treasurer, Ray Gregg, can always be tapped for items. Ex-prexie Dick (the magnificent) Westwood churning in a perpetual lather of Nature Magazine, International Natural Resource Programs, checking up on Congress, faithfully produces material for Ye Little Olde News Letter.

Ellsworth Jaeger finds time to write books, run caravans, do his daily stint at the Buffalo Museum of Science, and still put something in the mail for the News Letter. Come one, come all, GIVE.

Between Mildred Rulison, who has taken over the greater part of New Jersey in the name of ANSS and has added some twenty new members to our roster, and Ruth Hopson who quietly goes about taking in the greater part of the West Coast, we can honestly say, "We have gruesome!" Pun!!

Join American Nature Study Society and get married! Miss Lillian Hynninen, of Connecticut is now Mrs. Lillian Engstrom, 1047 Mountain Road, West Hartford 7, Connecticut. Felicitations Mrs. Engstrom!

Jim Fowler, of the Academy of Natural Sciences in Philadelphia, our film editor, has been directing a very active and exciting program of involving the public school teachers in natural science. With Philadelphia's water problem, Jim has had a natural, near at hand field for his students. Museum people and school teachers should examine his program.

Obituary

We deeply regret announcing that Miss Lauretta Hopkins, 50 Franklin Street, Meriden, Connecticut, died on March 10.

We were also informed of the death of Mr. George Connor of Hot Springs, Arkansas and Mr. Harold I. O'Byrne of Iberia, Missouri. We would like to extend our sympathies to the families of these three members of ANSS.

Film Facts

Your Film Editor would like to devote the FILM FACTS column in this issue to the nature films being produced by Walt Disney.

The first of these films was *Seal Island*, an unusually good story concerning the seal herds of the Pribilof Islands in the Bering Sea off the coast of Alaska. More recently a second film in this series was released. This film, *Beaver Valley*, is discussed in more detail below. A third title now in production is to be called *Nature's Half Acre*. Watch for these films in your neighborhood theaters. They are well worth the price of admission to the feature attraction with which they are billed as a short subject.

It is gratifying to note this effort on the part of Hollywood to popularize natural history for the ordinary theater patron, a trend which is, incidentally, of great value to museums in their efforts to provide outstanding nature films for their programs. But it is disconcerting to note that apparently even Mother Nature needs the customary "Hollywood treatment." This latter point was brought out recently by an article in The New Yorker Magazine from which the concluding portion of this column is quoted:

We saw "Beaver Valley" the other day, a film that contains good animal photography, and we were disappointed by the producer's patronizing attitude toward nature. This film could have been first-rate, and parts of it are. But in Hollywood, nature is just a sort of dull play on a badly arranged set, the whole thing in need of clowning. So when the toad and frog were introduced, swelling their throats in the passionate season, Disney dubbed in opera music to accent the notes and turn a fascinating sexual manifestation, seldom observed, into a ten-cent laugh. All through filmland runs this curious feeling of patronage, a conviction that nature is useful only when tinkered, like a baby turtle that makes sense only when an American flag is painted on its shell.

GAME LAWS AND OUR COURTS

The National Wildlife Federation sent out a leaflet by Claude D. Kelley entitled, "What our courts must learn: GAME LAWS ARE NO JOKE!"

Mr. Kelley says that there is little doubt that courts still view conservation-law infractions as minor irritants rather than crimes against the people and the property they are heir to.

Additional copies of this leaflet may be obtained from the Federation, 3308 Fourteenth St., N.W., Washington 10, D. C.

Welcome Wagon For New Members

- B. S. Gayne, Box 238, Rocky Hill, N. J.
Adele Grant, 6019 Overhill Drive, Los Angeles 43, California
Alvah Sanborn, Pleasant Valley Sanctuary, Lenox, Mass.
Agnes Muller, Box 424, St. James, Missouri
Helen Marshall, 1016 - 62nd Street, Chicago 37, Illinois
Jean Garrett, 121 W. Washington, Villa Park, Illinois
School Service Department, Peabody Museum of Natural History, Yale University
City Board of Education, 151 Main Street, Wadsworth, Ohio
Laura Lund, 608-610 Bramhall Avenue, Apt. 14, Jersey City 4, N. J.
Edith B. Lloyd, 1133 Hollywood Road, Linden, New Jersey
George Simpson, 1407 Morris Avenue, Apt. 306, Union, N. J.
Ruth Smith, 449 Ainsworth Street, Linden, New Jersey
Elsie Dimpegno, 281 Winfield Terrace, Union, New Jersey
David Wolfe, 1923 Dill Avenue, Linden, New Jersey
Helen K. Koch, 10 Fox Hill Lane, Short Hills, New Jersey
James J. Scanlon, 627 Lafayette Street, Linden, New Jersey
Mrs. Susan Godfrey, 1217 Husa Street, Linden, New Jersey
Marion Plotkin, 1215 N. Wood Avenue, Roselle, N. J.
George T. Sargisson, Rec. Promotion and Service, Inc., 101 W. 14th Street, Wilmington, Delaware
Leo F. Simon, 711 S.W. Ankenny Street, Portland 5, Oregon
Red Raider Camp, 20800 Almar Drive, Shaker Heights 22, Ohio
Mrs. Arthur D. Williams, 14 Garthwaite Terrace, Maplewood, N. J.
Mrs. Helen G. Fisher, 740 Park Avenue, Bound Brook, N. J.
Miss Dorothy McGuire, 305 Kipp Avenue, Hasbrauck Heights, N. J.
Mrs. Isabel Nelson, Raymond Chisholm School, Springfield, N. J.
Jane Eaton Schorr, 1409 Main Avenue, Hillside, N. J.
Dorothy U. Reinhard, 301 W. Jersey Street, Elizabeth 2, N. J.
Mrs. Julia F. Dainer, 194 Carolyn Road, Union, N. J.
Mrs. Ruth Hornblower, 11 Oak Street, Lake Arrowhead, Denville, N. J.
Mrs. Dorothy Gibb, 333 Putnam Road, Union, N. J.
Mrs. Gladys D. Brown, Box 82, Dunellen, New Jersey
Mrs. Dorothy J. Creighton, 2088 Tyler Street, Union, N. J.
Bertha Obermann, 2411 Seymour Avenue, Union, N. J.
Mrs. Sara N. Rame, 17 Shephard Avenue, Newark, N. J.
Elinor M. Vinberg, 125 E. Jersey Street, Elizabeth, N. J.
Mrs. Grace B. Furino, 1324 George Street, Plainfield, N. J.
Mary A. Pedicini, 1 Summit Avenue, Summit, N. J.
Caroline Rowland, 276 Chestnut Avenue, N.E., Warren, Ohio

PARKS FOR LEARNING

— continued from page 1 —

Procedure for the project included monthly naturalist-led field trips, with every teacher and child in the school participating by class units. These trips were planned to stimulate interests, and to give direction and continuity to the studies. Between these monthly outings there were frequent class and committee visits to the park.

On the initial trip, the "scientific method" was introduced in terms of the spirit of discovery and investigation. Each child became a small-scale Christopher Columbus and an FBI man of the mysteries of science. As a whole, the children showed great enthusiasm, taking delight in discovering for themselves things they had passed by without notice before. As the year progressed, their familiarity with natural objects of the park, and their feeling for these things was remarkable. Particularly gratifying to the park administration is the fact that this use of the park was without distinguishable abuse or damage.

Jackson School became literally a school with a "built-in park." Oral and written English were permeated with the flavour of the outdoors. Reference reading for reports on the field studies, and dictionary work on newly encountered words of science were self-propelling contributions to reading as a curriculum field. Woven into the entire school-park program was an awareness on the part of the children of their responsibility in the care of parks and natural resources in general, directly in line with social studies objectives. Children drew, painted, modeled, leaf-printed, prepared charts and records, made posters, illustrated scrapbooks, and prepared displays, all creative phases of the art curriculum of the school. The wholesome fresh-air activity involved in the field trips was a physical education process in itself. Even the music field was involved through selection of theme music for a nature ballet presented by one group.

Two special projects that grew out of this outdoor-centered study of natural sciences were of unusual interest. The sixth grade took trees as their major year-long study. As a climax feature of their work in this field, they wrote and produced a 15-minute radio program on "Flowers of Trees," which was broadcast over Station WARL, Arlington, Virginia. The entire school listened, and there were spirited discussions of the broadcast in all the classrooms.

The third and fourth graders decided to write and present a ballet, based upon their observations through the seasons.

With a minimum of help from the teacher, they wrote their own script, selected the music, designed and made their own costumes, and improvised original interpretive dance themes. The ballet, "Hannah's Dream," was produced in the park that inspired it, before a large audience of schoolmates, parents, and friends. It was an impressive tribute to the effective but unobtrusive leadership of their teacher, since deceased; and a remarkable demonstration of the way in which intensive subject interest can be sustained in children.

The ability to think creatively, the esthetic tastes, and the artistic talents of the participating children showed great growth during this year of contact with nature in her visible forms.

The success and enthusiasm engendered at Jackson School has been a stimulus to other schools in the District of Columbia. A number of teachers elsewhere have begun to make increasing use of park resources near them. As available time permits, National Park Service naturalists are assisting these teachers in making inventories of opportune resources of parks selected for use, and are providing sample methods of group procedure and pupil project activity. But we have just touched upon the vast possibilities for educational use of our parks.

The doors of a properly-designed school swing outward. We hope to set up internal chain reaction of interest that will burst open those tight doors, allowing thirst for learning to rush forth, and return bearing rich, satisfying, useful experience with natural objects and processes, in a sort of reciprocal trade pact for improved science education between school and park.

"My Land and Your Land"

CHILDREN'S CONSERVATION SERIES

Published by the

National Wildlife Federation
Washington 10, D. C.

Booklet Number One — *Would You Like to Have Lived When?* — For children in the third, fourth, and fifth grades.

Booklet Number Two — *Raindrops and Muddy Rivers* — For children in the fourth, fifth and sixth grades.

Booklet Number Three — *Plants and Animals Live Together* — For children in the fifth, sixth, and seventh grades.

Booklet Number Four — *Nature's Bank-The Soil* — For children in the sixth, seventh, and eighth grades.

Conservation Source Material

Bear River, a National Wildlife Refuge, No. 8 in Conservation in Action Series of U. S. Fish and Wildlife Service, Superintendent of Documents, Washington 25, D. C. 10 cents

Conservation in the Schools, National Committee on Policies in Conservation Education, 1409 Garfield Street, Laramie, Wyoming 15 cents

Plant America Means Soil Conservation, American Association of Nurserymen, 636 Southern Bldg., Washington 5, D. C. Free

The Why, What and How to Soil Conservation Districts, National Association of Soil Conservation Districts, League City, Texas Free

Growing and Harvesting Tree Crops, West Virginia Pulp and Paper Company, 230 Park Avenue, New York 17, New York Free

Forest Resources of the Lake States, Superintendent of Documents, Washington 25, D. C. 30 cents

The Story Told by a Fallen Redwood, Save-the-Redwoods League, 250 Administration Building, Berkeley 4, California 10 cents

Conservation Sketchbook, Missouri Conservation Commission, Jefferson City, Missouri 10 cents

How Money Goes Up in Smoke, Southern Kraft Division, International Paper Co., Mobile 9, Alabama Free

Clean Water Is Everybody's Business, Superintendent of Documents, Washington 25, D. C. 20 cents

Natural Landscapes of the United States, Chicago Natural History Museum, Chicago 5, Illinois 30 cents

ON THE CONSERVATION FRONT

— continued from page 1 —

H. R. 2897 seeks to establish a wildlife refuge that would save the remnant of the Florida Keys deer. The bill is in the hands of the House Committee on Merchant Marine and Fisheries, the subcommittee of which, in charge of fish and wildlife legislation, is headed by Frank W. Boykin of Alabama. This same committee has H. R. 1870, extending protection to the bald eagle in Alaska. This bill passed the House during the previous Congress but was fouled up in the Senate thanks to the delegate from Alaska.

John Muir Trail Trips 1951

Joseph Wampler, 1940 Hearst Ave., Berkeley 9, California, is running another series of trips over California's famous 200 mile John Muir Trail in the High Sierras.

Mr. Wampler says, "Many men have traveled these mountains — artists, poets, writers, simple folk, and mountaineers — and they have expressed many inspiring thoughts about them, but however fine these expressions are, they are lacking in one vital particular — they are not yours. Come and find your mountain home."

For particulars, write Mr. Wampler. These trips are growing in popularity so you had better start making your plans.

Besides the memories of magnificent surroundings, the friends you will make will delight you the rest of your days.

Along Nature's Path

by CHARLOTTE GREEN

Editor's note — This paper of Charlotte Green's, read at Cleveland, will be run serially, due to length.

You can tell by my hair that I go back before World War I. I started Nature Study by the trial and error method, in my first school, a one-room country school with 57 children, eight grades — and to earn the salary of \$10.50 a week, the janitor work. I had never even been inside a country school before I began teaching, and my Teacher Training Class practice had been in a village school.

In the rural schools of New York State of that day, Nature Study was required — or supposed to be. I knew little about it. We had had none in the town school's I attended, only a minimum in the Training Class. My science courses and B.S. degree were to come long years later.

I bought Keeler's *Our Native Trees* and Reed's *Bird Guide* (that was before Peterson's day). I wonder how many of you are old enough to have started with Reed's *Land Birds East of the Rockies*! It certainly dates one, being pre-Peterson, like that! There was also "half-a-flower-book" among the school's so-called library, which consisted of about 40 battered books. We also had those life-savers, the Cornell Rural School Leaflets, and one of my children was to have a letter published in one of them.

With those three books "My 57" and I went to work. I didn't know whether to compare myself to the Old Woman Who Lived in the Shoe (when the entire class came at the same time, there was no room to seat them) or to Heinz, who at that time was advertising "57 varieties," for I, too, had "57 varieties" (children

of early American stock, Germans, Swedes, Italians, Poles, even a small half-breed, Susie Little Bear) made up my school.

In those horse and buggy days there was less to distract children. There were few movies, few comics, no radio, no television, no Lone Ranger with his "Heigh-Ho Silver," no Hopalong Cassidy. We were a poor district, with a lot of children, and since there were almost no amusements, Nature Study, with its field trips, opened up a new world of adventure to them. Of course, they were supposed to have had Nature Study the year before, but they hadn't. The teacher had been a man of sixty who was near-sighted and deaf, and one day the big boys decided not to have school and locking him in an outhouse, put on a three-ring circus.

But it was beautiful country, that hill country of western New York, overlooking this same Lake Erie. It had small lakes close by, many little brooks, with bridges under which phoebes nested; hills and woodlands, upland meadows with Bobolinks and Meadow Larks, swamps with Blackbirds, brushy tangles, ravines and gorges — just about everything budding naturalists wanted. And that's what we became. There was a copy of Thoreau's *Walden* among those 40 battered books, and I read parts of it aloud to them. From it we borrowed his "I have traveled a great deal around Concord" adapting it to "We have traveled a great deal around Hardscrabble." We came to know the contour of the country, its trees and ferns and wild flowers, where to find the best nuts, where to look for certain birds.

We organized a "Young Explorer's Club" and tried to know the countryside, and something of the adjoining districts. Sometimes, on pleasant days, the children gladly gave up both recesses and took but a brief nooning, and we'd close about 2:30 to go on a field trip. That fall we brought in all the different kinds of ferns we could find. I did not have a fern book and could not identify many from the book I brought from the village library, but we noted the differences and kept on trying. The rare walking fern was easy to identify, and provided a tremendous kick. That was a good fern country, and some of the girls had a friendly rivalry over who could find the most kinds of ferns, or the most on their own farms. We also brought in all the different species of goldenrod and asters we could find. True, we did not get very far

in identification, but we learned to look for differences, and were surprised at the number of species.

Coincident with the opening of school in September, I had had each child choose a bird and a tree for his "own" to "live intimately with and become an authority on." We put suet on the trees about the school-yard and many of the children did that at home — had a Window Cafeteria Bird Shelf. Around the room we had a Bird Frieze. That was in the heyday of the Perry Pictures — I did not even know then of the far more excellent Audubon pictures — whose color plates were many years later to be used to illustrate a simple bird book I myself was to write for use in southern schools. Each child brought the two cents for a picture of his "own bird" and I duplicated the amount. I still remember the lordly air with which one of the big boys — as old as I was, that first year — threw a nickel on my desk and nonchalantly said "Keep the change for the Bird Fund." A nickel was a nickel in those days!

Each week one picture was put up in a prominent place to be the "Bird of the Week" and by the end of the week all the children were expected to know much about it, depending on age level of child, of course. Was it a permanent resident, or winter, or summer, or just a transient? Were the sexes alike? What kind of tail, beak, feet, head, wings, etc. did it have? What kind of nest did it build? (Where we could, we had an old nest on the wall, beside it.) How many eggs in a clutch? What its food, and was the bird a help to the farmer?

We began our study with those birds of summer that would soon be leaving — the Robin, Bluebird, Wood Thrush, Hummingbird, Vireos, etc. We drew maps showing each bird's summer and winter range, and found out what we could about their migratory routes. When Johnny, whose bird was the Bobolink which had nested in his meadow, and which later, in the spring, was to nest in the field next the school, so we could hear it through the open windows — when Johnny learned that the Bobolink went through South Carolina, was known there as the "rice bird" and being a nuisance, was shot by thousands, he was so indignant he threatened to take his granddaddy's shotgun — his granddaddy was an old G.A.R. — and go down and shoot those Reds himself!

Continued in the Summer issue

AMERICAN NATURE STUDY SOCIETY

P.O. Box 111, Elmsford, N. Y.

